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Han-Sub Park

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STAAS & HALSEY LLP  
SUITE 700  
1201 NEW YORK AVENUE, N.W.  
WASHINGTON, DC 20005

EXAMINER

CLEARY, THOMAS J

ART UNIT

PAPER NUMBER

2111

DATE MAILED: 10/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/689,747

Applicant(s)

PARK ET AL.

Examiner

Thomas J. Cleary

Art Unit

2111

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 20060606.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Applicant's traverse in the reply filed on 12 July 2006 is persuasive. The requirement for restriction is therefore withdrawn.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:  
  
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the Applicant regards as his invention.
3. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.
4. In reference to Claims 1-12, it is unclear if the drivers are loaded in the personal handheld terminal system/PDA, in the host, or in another location.
5. In reference to Claims 2, 3, 5, and 6, it is unclear what a data sync module specification is, or to what specification it refers to.

6. In reference to Claims 4, 5, and 6, it is unclear what a mass storage module specification is, or to what specification it refers to.
7. In reference to Claims 7-10, it is unclear what a data transition/reception specification is, or to what specification it refers to.
8. In reference to Claims 8-10, it is unclear what a data interface specification is, or to what specification it refers to.
9. Claim 9 recites the limitation "the USB host request" in Lines 4-5. There is insufficient antecedent basis for this limitation in the claim.
10. In reference to Claim 10, it is unclear what a personal hand held terminal mode refers to.
11. Claim 12 recites the limitation of unloading the data sync driver. Claim 11, from which Claim 12 depends only requires that the data sync driver be loaded if a data sync transmission/reception request is received. As a situation could exist when the data sync driver is not loaded, it is unclear how it can then be unloaded.

***Claim Rejections - 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the Applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the Applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

13. Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Microsoft ActiveSync 3.1, as described in "Microsoft ActiveSync 3.1" by Chris De Herrera ("ActiveSync").

14. In reference to Claim 1, ActiveSync discloses a PDA through which a host PC can communicate with via USB as either a data sync client (See Page 1 Paragraph 1 and Page 6 Figure) or a mass storage client (See Page 7 Figure). These clients must each have a different driver. A command is sent to the device indicating whether it is to be recognized as a data sync client, through the use of the "Sync" button in ActiveSync, or a mass storage client, through the use of the "Explore" button in ActiveSync (See

Page 6 Figure). The PDA will selectively load the appropriate driver and communicate with the host through the USB interface using the selected driver.

15. In reference to Claims 2 and 3, ActiveSync discloses the limitations as applied to Claim 1 above. ActiveSync will further terminate the mass storage driver and load the data sync driver if the device is operating as a mass storage client when a data sync communication request is received, as the device will not operate properly if the appropriate driver is not loaded.

16. In reference to Claim 4, ActiveSync discloses a PDA through which a host PC can communicate with via USB as either a data sync client (See Page 1 Paragraph 1 and Page 6 Figure) or a mass storage client (See Page 7 Figure). These clients must each have a different driver. A command is sent to the device indicating whether it is to be recognized as a data sync client, through the use of the "Sync" button in ActiveSync, or a mass storage client, through the use of the "Explore" button in ActiveSync (See Page 6 Figure). The PDA will selectively load the appropriate driver and communicate with the host through the USB interface using the selected driver. ActiveSync will further load the mass storage driver if the device is not operating as a mass storage client when a mass storage communication request is received, as the device will not operate properly if the appropriate driver is not loaded.

17. In reference to Claims 5 and 6, ActiveSync discloses the limitations as applied to Claim 4 above. ActiveSync will further terminate the mass storage driver and load the data sync driver if the device is operating as a mass storage client when a data sync communication request is received, as the device will not operate properly if the appropriate driver is not loaded.

18. In reference to Claim 7, ActiveSync discloses a PDA through which a host PC can communicate with via USB as either a data sync client (See Page 1 Paragraph 1 and Page 6 Figure) or a mass storage client (See Page 7 Figure). These clients must each have a different driver. A command is sent to the device indicating whether it is to be recognized as a data sync client, through the use of the "Sync" button in ActiveSync, or a mass storage client, through the use of the "Explore" button in ActiveSync (See Page 6 Figure). The PDA will selectively load the appropriate driver and communicate with the host through the USB interface using the selected driver. ActiveSync will further load the mass storage driver if the device is not operating as a mass storage client when a mass storage communication request is received, and will load the data sync driver if the device is not operating as a data sync client when a data sync communication request is received, as the device will not operate properly if the appropriate driver is not loaded.

19. In reference to Claims 8, 9, and 10, ActiveSync discloses a PDA through which a host PC can communicate with via USB as either a data sync client (See Page 1

Paragraph 1 and Page 6 Figure) or a mass storage client (See Page 7 Figure). These clients must each have a different driver. A command is sent to the device indicating whether it is to be recognized as a data sync client, through the use of the "Sync" button in ActiveSync, or a mass storage client, through the use of the "Explore" button in ActiveSync (See Page 6 Figure). The PDA will selectively load the appropriate driver and communicate with the host through the USB interface using the selected driver. ActiveSync will further load the mass storage driver if the device is not operating as a mass storage client when a mass storage communication request is received, and will load the data sync driver if the device is not operating as a data sync client when a data sync communication request is received, as the device will not operate properly if the appropriate driver is not loaded.

20. In reference to Claim 11, ActiveSync discloses a PDA through which a host PC can communicate with via USB as either a data sync client (See Page 1 Paragraph 1 and Page 6 Figure) or a mass storage client (See Page 7 Figure). These clients must each have a different driver. A command is sent to the device indicating whether it is to be recognized as a data sync client, through the use of the "Sync" button in ActiveSync, or a mass storage client, through the use of the "Explore" button in ActiveSync (See Page 6 Figure). The PDA will selectively load the appropriate driver and communicate with the host through the USB interface using the selected driver. ActiveSync will further unload the mass storage driver and load the data sync driver if the device is



operating as a mass storage client when a data sync communication request is received, as the device will not operate properly if the appropriate driver is not loaded.

21. In reference to Claim 12, ActiveSync discloses the limitations as applied to Claim 11 above. ActiveSync will further unload the data sync storage driver and load the mass storage driver if the device is operating as a data sync client when a mass storage data sync communication request is received, as the device will not operate properly if the appropriate driver is not loaded.

22. Claim 8 is rejected under 35 U.S.C. 102(e) as being anticipated by US Patent Number 7,082,598 to Le et al. ("Le").

23. In reference to Claim 8, Le discloses a personal digital assistant, comprising: a USB interface; and a USB data driver selecting unit selectively loading USB data drivers in response to a data interface specification request and transmitting/receiving data to/from a USB host via the selected USB data driver driving the USB interface (See Column 8 Line 29 – Column 9 Line 32 and Column 31 Line 35 – Column 32 Line 3).

***Claim Rejections - 35 USC § 103***

24. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

25. Claims 1-7, 11, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 6,256,008 to Sparks et al. ("Sparks") and Le.

26. In reference to Claim 1, 2, and 3, Sparks discloses a personal hand held terminal system, comprising: a USB mass storage driver (See Figure 2 and Column 3 Lines 33-48). Sparks does not disclose a data sync driver; a USB interface interfacing data with a USB host; an input section receiving a system switchover command from a user to cause the USB host to selectively recognize the system as a USB mass storage or a data sync client; and a control section selectively loading the data sync driver or the USB mass storage driver according to the system switchover command input through the input section, and controlling the system to transmit/receive the data to/from the USB host by the loaded driver and the USB interface, as in Claim 1; that the control section loads the data sync driver, if a data transmission/reception request is delivered from the USB host based on a data sync module specification while the system is selected to operate as the USB mass storage, as in Claim 2; and the control section

forcibly terminates the loaded USB mass storage driver, if a data transmission/reception request is delivered from the USB host based on a data sync module specification while the system is selected to operate as the USB mass storage, as in Claim 3. Le teaches that PDAs commonly have a USB interface and a data sync driver (See Column 30 Lines 51-62). Le further teaches selectively loading a different driver than the driver currently loaded and communicating with the USB host using the loaded driver (See Column 8 Line 29 – Column 9 Line 32 and Column 31 Line 35 – Column 32 Line 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the PDA of Sparks with the driver switching ability of Le, resulting in the invention of Claim 1, in order to allow the device to act like a different device for a limited time to expose unique features (See Column 2 Lines 24-27 and Column 31 Lines 48-55 of Le).

27. In reference to Claim 4, Sparks discloses a method of interfacing information of a personal hand held terminal system, comprising: loading a preset mass storage driver; and interfacing data with a host via the mass storage driver, if a data transmission/reception request is delivered from the host according to a mass storage specification (See Figure 2 and Column 3 Lines 33-48). Sparks does not disclose that the mass storage driver is a USB mass storage driver and loading the mass storage driver if a system USB mass storage switchover command is input. Le teaches that PDAs commonly have a USB interface (See Column 30 Lines 51-62). Le further teaches selectively loading a different driver than the driver currently loaded and

communicating with the USB host using the loaded driver (See Column 8 Line 29 – Column 9 Line 32 and Column 31 Line 35 – Column 32 Line 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the PDA of Sparks with the driver switching ability of Le, resulting in the invention of Claim 1, in order to allow the device to act like a different device for a limited time to expose unique features (See Column 2 Lines 24-27 and Column 31 Lines 48-55 of Le).

28. In reference to Claim 5, Sparks and Le disclose the limitations as applied to Claim 4 above. Le further discloses loading a preset data sync driver, if a data transmission/reception request is delivered from the USB host based on a data sync driver specification while another driver is loaded; and interfacing the data with the host via the loaded data sync driver (See Column 8 Line 29 – Column 9 Line 32 and Column 31 Line 35 – Column 32 Line 3).

29. In reference to Claim 6, Sparks and Le disclose the limitations as applied to Claim 5 above. Le further discloses that the data sync driver is loaded after terminating the loaded driver (See Column 8 Line 48 – Column 9 Line 2).

30. In reference to Claim 7, Sparks discloses a personal hand held terminal system, comprising: a mass storage driver; and an interface interfacing data with a host (See Figure 2 and Column 3 Lines 33-48). Sparks does not disclose that the mass storage

driver is a USB mass storage driver; a data sync driver; that the interface is a USB interface; and a control section selectively loading the USB mass storage driver or the data sync driver according to a data transmission/reception specification request from the USB host, and interfacing data with the USB host via the loaded driver and the USB interface. Le teaches that PDAs commonly have a USB interface and a data sync driver (See Column 30 Lines 51-62). Le further teaches selectively loading a different driver than the driver currently loaded and communicating with the USB host using the loaded driver (See Column 8 Line 29 – Column 9 Line 32 and Column 31 Line 35 – Column 32 Line 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the PDA of Sparks with the driver switching ability of Le, resulting in the invention of Claim 7, in order to allow the device to act like a different device for a limited time to expose unique features (See Column 2 Lines 24-27 and Column 31 Lines 48-55 of Le).

31. In reference to Claims 11 and 12, Sparks discloses a personal digital assistant, comprising: an interface; and a programmed computer processor controlling the assistant according to a process of: loading a mass storage data driver (See Figure 2 and Column 3 Lines 33-48). Sparks does not disclose that the interface is a USB interface; the mass storage data driver is a USB mass storage data driver; determining if a data sync transmission/reception request is received from a USB host over the USB interface, unloading the USB mass storage data driver, if determined that the data sync

transmission/reception request is received, loading a data sync driver, and transmitting/receiving data to/from the USB host via the loaded data sync driver over the USB interface, as in Claim 11; and determining if a USB mass storage transmission/reception request is received from the USB host over the USB interface; unloading the data sync driver, if determined that the USB mass storage transmission/reception request is received; loading the USB mass storage data driver; and transmitting/receiving data to/from the USB host via the loaded data sync driver over the USB interface. Le teaches that PDAs commonly have a USB interface and a data sync driver (See Column 30 Lines 51-62). Le further teaches selectively loading a different driver than the driver currently loaded and communicating with the USB host using the loaded driver (See Column 8 Line 29 – Column 9 Line 32 and Column 31 Line 35 – Column 32 Line 3).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the PDA of Sparks with the driver switching ability of Le, resulting in the invention of Claim 11, in order to allow the device to act like a different device for a limited time to expose unique features (See Column 2 Lines 24-27 and Column 31 Lines 48-55 of Le).

32. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Le as applied to Claim 8 above, and further in view of Sparks.

33. In reference to Claim 9, Le discloses the limitations as applied to Claim 8 above. Le does not disclose that the USB data drivers comprise a USB mass storage data driver. Le further discloses that PDAs commonly have a USB interface and a data sync driver (See Column 30 Lines 51-62). Le further teaches selectively loading a different driver than the driver currently loaded and communicating with the USB host using the loaded driver (See Column 8 Line 29 – Column 9 Line 32 and Column 31 Line 35 – Column 32 Line 3). Sparks teaches a PDA having a mass storage data driver (See Figure 2 and Column 3 Lines 33-48).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the PDA of Sparks with the driver switching ability of Le, resulting in the invention of Claim 9, in order to allow the device to act like a different device for a limited time to expose unique features (See Column 2 Lines 24-27 and Column 31 Lines 48-55 of Le).

34. In reference to Claim 10, Le discloses the limitations as applied to Claim 8 above. Le does not disclose that the USB data drivers comprise a USB mass storage data driver. Le further discloses that PDAs commonly have a USB interface and a data sync driver (See Column 30 Lines 51-62). Sparks teaches a PDA having a mass storage data driver (See Figure 2 and Column 3 Lines 33-48).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to construct the PDA of Sparks with the driver switching ability of Le, resulting in the invention of Claim 10, in order to allow the device to act like a

different device for a limited time to expose unique features (See Column 2 Lines 24-27 and Column 31 Lines 48-55 of Le).

### ***Information Disclosure Statement***

35. The information disclosure statement filed 5 June 2006 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each document listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

### ***Conclusion***

36. The following prior art made of record and not relied upon is considered pertinent to Applicant's disclosure: "ActiveSync FAQ" by Chris De Herrera; US Patent Application Publication Number 2004/0054826 to Lai et al.; US Patent Application Publication Number 2004/0139309 to Gentil et al.; US Patent Application Publication Number 2003/0208698 to Chou et al.; US Patent Application Publication Number 2004/0078498 to Saotome; US Patent Number 7,102,671 to Asnaashari; US Patent Number 6,216,188 B1 to Endo et al.; and US Patent Application Publication Number 2004/0083315 to Grassian et al.

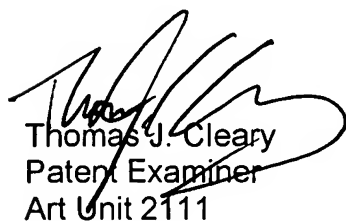


Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Thomas J. Cleary whose telephone number is 571-272-3624. The Examiner can normally be reached on Monday-Thursday (7-3), Alt. Fridays (7-2).


If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mark Rinehart can be reached on 571-272-3632. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TJC



Thomas J. Cleary  
Patent Examiner  
Art Unit 2111



MARK H. RINEHART  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100